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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,291	09/23/2004	Lars Gronroos	SEPPO-P0003	3715

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EXAMINER	
CHOI, PETER Y	
ART UNIT	**PAPER NUMBER**
1794	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/509,291	GRONROOS ET AL.	
	Examiner	Art Unit	
	PETER Y. CHOI	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 April 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) *14-24* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13 and 25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 September 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicants' submission filed on April 17, 2009, has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-13 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 01/79606 to Grönroos in view of US Pub. No. 2003/0106658 to Ilmonen.

Regarding claims 1-13 and 25, Grönroos teaches a fibrous web comprising an amount of solids, wherein solids include fibrous material, and a filler, wherein the filler is a substance in granular form, having a rotationally symmetrical shape and an inner part and a crust part, whereby the density of the inner part is lower than the crust part, wherein the density of the inner part is about 10 to 90% of that of the crust part (see entire document including page 1 lines 3-26, page 3 lines 2-9, page 4 line 28 to page 5 line 31, page 7 lines 4-34, page 8 lines 9-19, page 9

lines 19-29, page 10 lines 3-29, page 11 lines 25-34, page 12 lines 5-9, page 12 line 32 to page 13 line 4).

Regarding claims 1-13 and 25, Grönroos does not appear to specifically teach that the amount of filler used is within the range of approximately 30 to approximately 60% of the amount of solids and 30% to 60% of the amount of solids. However, Grönroos suggests that the properties of the coated base may be manipulated by the thickness of the coating and that the coating is generally optimizable based on the desired coverage and properties. Since Grönroos is silent as to the exact amounts of filler in relation to solids including fibrous material, it would have been necessary and therefore obvious to look to the prior art for conventional amounts of filler and fibrous material. Ilmonen provides this conventional teaching, showing a substantially similar coated paper web comprising a fibrous paper web and a filler coating, wherein the filler coating comprises a pigment such as kaolin and a binder, and wherein the fibrous web weighs 50-450 g/m^2 or 30-250 g/m^2, preferably 30-80 g/m^2, and the coating weighs approximately 50-70 g/m^2 (Ilmonen, paragraphs 0003, 0005-0007, 0027-0031, 0039, 0040, 0046, 0053-0056, claims 1-24). Ilmonen teaches that a coated webs have excellent printability properties, good smoothness, and high opacity and brightness. It would have been obvious to one of ordinary skill in the fibrous paper web art at the time the invention was made to form the invention of the prior art, with the fibrous web and coating weights, as taught by Ilmonen, motivated by the desire to form a conventional fibrous paper web with fibrous paper web and coating weights known in the art to predictably result in coated paper webs which are bright while maintaining the smoothness and the gloss of the paper, and which have excellent printability properties, good smoothness, and high opacity and brightness. It should be noted that in the case where the

claimed ranges overlap or lie inside ranges disclosed by the prior art a prima facie case of obviousness exists. Additionally, it would have been obvious to one of ordinary skill in the art at the time the invention was made to vary the amount of filler used, based on the desired brightness, smoothness, and opacity of the resulting coated paper web, suitable for the desired application.

Regarding claim 2, the prior art teaches that the density of the inner part of the filler granule is 40 to 80% of that of the crust part (Grönroos, page 11 lines 25-34).

Regarding claim 3, the prior art teaches that the filler granule consists of pigment particles and a binder (Grönroos, page 9 line 31 to page 10 line 2, page 10 lines 19-23, Claim 27).

Regarding claim 4, the prior art teaches that the density of the pigment particles is 1500 to 7000 kg/m^3 (Grönroos, page 7 lines 22-28).

Regarding claim 5, the prior art teaches that the density of the filler granule is 400 to 6300 kg/m^3, whereby the density of the inner part is about 50 to 5700 kg/m^3, and the density of the crust part is about 600 to 6300 kg/m^3 (Grönroos, page 7 lines 22-28, page 11 lines 25-34).

Regarding claim 6, the prior art teaches that the inner part of the filler granule contains rougher pigment particles in relation to the crust part (Grönroos, page 5 lines 5-12).

Regarding claim 7, the prior art teaches that the porosity of the inner part of the filler granule is higher than that of the crust part, whereby the pore volume of the inner part is 10 to 70% by volume (Grönroos, page 11 lines 25-34).

Regarding claim 8, the prior art teaches that the crust part of the filler granule comprises metal silicate, metal sulphate or metal carbonate particles, which are bound to one another by

means of a cross-linked binder, whereby they form a fine and flexible coat that surrounds the inner part (Grönroos, page 10 lines 3-11, page 12 lines 5-9).

Regarding claim 9, the prior art teaches that the filler particles of the filler granule comprise any inorganic substance (Grönroos, page 10 lines 3-5).

Regarding claim 10, the prior art teaches that the particle size (φ) of the granulated filler is 1 to 100 gm (Grönroos, page 11 lines 25-34).

Regarding claim 11, the prior art teaches that the substance in the granular form is plastically deformable under the effect of pressure and/or temperature (Grönroos, page 7 lines 30-34).

Regarding claims 12 and 13, Grönroos teaches that the thicker the coating layer applied onto the web, the better the properties of the coated base paper are covered in connection with the coating (page 3 lines 2 and 3). Additionally, Grönroos teaches the thickness of the coating is generally optimized so that desired coverage and degree of properties are achieved (page 3 lines 3-8). However, Grönroos does not appear to teach the amount of the filler in granular form. Since Grönroos is silent as to the exact weight of the filler in granular form, it would have been necessary and therefore obvious to look to the prior art for conventional granular filler amounts. Ilmonen provides this conventional teaching, showing a substantially similar coated paper web comprising a fibrous paper web and a filler coating, wherein the filler coating comprises a pigment such as kaolin and a binder, and wherein the fibrous web weighs 50-450 g/m^2 or 30-250 g/m^2, preferably 30-80 g/m^2, and the coating weighs approximately 50-70 g/m^2 (Ilmonen, paragraphs 0003, 0005-0007, 0027-0040, 0046, 0053-0056, claims 1-24). Ilmonen teaches that the coating comprises 10-100 parts by weight of pigments particle, 0.1-30 parts by weight of

binder, and 0.1-10 parts by weight of other additives. Ilmonen teaches that a coated webs have excellent printability properties, good smoothness, and high opacity and brightness. It would have been obvious to one of ordinary skill in the fibrous paper web art at the time the invention was made to form the invention of the prior art, wherein the granular filler comprises the weights as taught by Ilmonen, motivated by the desire to form a conventional coated fibrous paper web with granule filler weights known in the art to predictably result in coated paper webs which are bright while maintaining the smoothness and the gloss of the paper, and which have excellent printability properties, good smoothness, and high opacity and brightness. It should be noted that in the case where the claimed ranges overlap or lie inside ranges disclosed by the prior art a prima facie case of obviousness exists. Additionally, it would have been obvious to one of ordinary skill in the art at the time the invention was made to vary the amount of filler granule used, based on the desired brightness, smoothness, and opacity of the resulting coated fibrous paper web, suitable for the desired application. Additionally, it is reasonable for one of ordinary skill in the art to expect that the bonding strength of the fibrous web is essentially the same as that of a corresponding fibrous web that contains no filler, as the prior art teaches a substantially similar structure and composition as the prior art, and one of ordinary skill in the art would expect that the invention of the prior art would behave in a substantially similar and/or identical manner, absent evidence to the contrary.

Regarding claim 25, the prior art teaches that the amount of filler used is 30% to 60% of the amount of solids (Ilmonen, paragraphs 0003, 0005-0007, 0027-0040, 0046, 0053-0056, claims 1-24). It should be noted that in the case where the claimed ranges overlap or lie inside ranges disclosed by the prior art a prima facie case of obviousness exists. Additionally, it would

have been obvious to one of ordinary skill in the art at the time the invention was made to vary the amount of filler used, based on the desired brightness, smoothness, and opacity of the resulting coated fibrous paper web, suitable for the desired application.

Response to Arguments

4. Applicants' arguments with respect to claims 1-13 and 25 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PETER Y. CHOI whose telephone number is (571)272-6730. The examiner can normally be reached on Monday - Friday, 08:00 - 15:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on (571) 272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Peter Y Choi/
Examiner, Art Unit 1794

/Andrew T Piziali/
Primary Examiner, Art Unit 1794